

We Claim:

1. An e-coupon distribution method comprising:
 - maintaining mobile user profile and seller profile data in database memory;
 - receiving a request from a mobile electronic device of a user to browse at least one e-coupon;
 - receiving location information for the requesting mobile electronic device;
 - determining a plurality of sellers local to the location of the mobile electronic device and a plurality of corresponding e-coupons available from said sellers;
 - sending e-coupon availability data to the mobile electronic device;
 - receiving a request for at least one e-coupon of a seller from the mobile electronic device;
 - authorizing the provision of said e-coupon; and
 - sending said e-coupon to the mobile electronic device upon authorization.
2. The e-coupon distribution method of claim 1 wherein said plurality of sellers is one seller.
3. The e-coupon distribution method of claim 1 wherein said plurality of corresponding e-coupons available from said sellers is one e-coupon.
4. The e-coupon distribution method of claim 1 wherein said mobile user profile and seller profile data are maintained in separate database memories.
5. The e-coupon distribution method of claim 1 wherein said authorization step occurs at the end of a processing cycle.
6. The e-coupon distribution method of claim 1 further comprising:
 - receiving a notification that said mobile electronic device is located within said seller;
 - receiving said seller location information;
 - determining whether said e-coupon has been redeemed; and

upon determining said e-coupon has been redeemed, increasing a quota of e-coupons by one in the mobile user profile.

7. The e-coupon distribution method of claim 1 further comprising determining an initial threshold for said seller for authorizing the provision of said e-coupon.

8. The e-coupon distribution method of claim 7 wherein said initial threshold is determined from dividing an advertising fee for said e-coupon by a product of an estimated number of redeems times a profit.

9. The e-coupon distribution method of claim 8 further comprising determining whether a number of pending requests for said e-coupon is greater than or equal to said initial threshold.

10. The e-coupon distribution method of claim 9 wherein providing said e-coupon to the mobile electronic device occurs upon determining said number of pending requests for said e-coupon is one of greater than or equal to said initial threshold and, after an optimal consolidation process is applied to all sellers with insufficient pending requests, is greater than or equal to an optimal threshold.

11. The e-coupon distribution method of claim 9 wherein providing said e-coupon to the mobile electronic device occurs upon determining said number of pending requests for said e-coupon is greater than or equal to said initial threshold.

12. An e-coupon distribution method comprising:

- (i) maintaining a mobile user profile and seller profile data in database memory;
- (ii) receiving a request for at least one e-coupon from a mobile electronic device of a user;
- (iii) receiving location information for the requesting mobile electronic device;
- (iv) determining a seller local to the location of the mobile electronic device;

- (v) determining an initial threshold for the seller;
- (vi) determining whether a number of pending requests for said e-coupon is greater than or equal to the initial threshold; and
- (vii) when the number of pending requests for said e-coupon is greater than or equal to the initial threshold, sending said e-coupon to the mobile electronic device

13. The e-coupon distribution method of claim 12 wherein when the number of pending requests for said e-coupon is less than the initial threshold:

- (viii) applying an optimal consolidation process to the seller;
- (ix) determining whether the number of pending requests for said e-coupon is greater than or equal to an optimal threshold; and
- (x) when the number of pending requests for said e-coupon is greater than or equal to the optimal threshold, sending said e-coupon to the mobile electronic device.

14. The e-coupon distribution method of claim 13 wherein when the number of pending requests for said e-coupon is less than the optimal threshold as determined in step (ix), sending a notification that no e-coupon for the seller will be provided.

15. The e-coupon distribution method of claim 14 further comprising logging said request for the e-coupon from the seller in said user profile and said seller profile.

16. An e-coupon distribution system comprising:

- a memory for storing mobile user profile and seller profile data;
- a profile proxy server to receive a request to browse at least one e-coupon from a mobile electronic device of a user;
- said profile proxy server to receive a location of the requesting mobile electronic device;

said profile proxy server to determine a plurality of sellers local to the location of the mobile electronic device and a plurality of corresponding e-coupons available from said sellers;

said profile proxy server to send e-coupon availability data to the mobile electronic device;

said profile proxy server to receive a request for at least one e-coupon of a seller from the mobile electronic device;

a commerce server to receive said request from said profile proxy server;

said commerce server to log said request in said mobile user profile and said seller profile;

at the end of a processing cycle, said commerce server to authorize the provision of said e-coupon; and

said commerce server to send said e-coupon to the mobile electronic device responsive to said authorizing step.

17. The e-coupon distribution system of claim 16 wherein said commerce server to determine an initial threshold for said seller to authorize the provision of said e-coupon.

18. The e-coupon distribution system of claim 17 wherein said initial threshold is determined from dividing an advertising fee for said e-coupon by a product of an estimated number of redeems times a profit margin for said e-coupon.

19. The e-coupon distribution system of claim 16 wherein upon receiving the request for at least one e-coupon from the mobile electronic device, said profile proxy server to send a reply message to the mobile electronic device.

20. The e-coupon distribution system of claim 19 wherein said reply message comprises a quota of e-coupons and an expected time to receive said e-coupon.

21. The e-coupon distribution system of claim 16 wherein said seller profile data comprises:

- a seller identification;
- a seller name;
- a seller address;
- a seller billing information;
- a seller instant contact address;
- a seller business type;
- a number of e-coupons allocated for distribution;
- a type of e-coupon;
- an estimated number of redeems;
- a number of pending requests; and
- a number of pending redeems.

22. The e-coupon distribution system of claim 21 wherein the instant contact address is a phone number, an instant message address, an email address, or any other method by which the seller can be notified as soon as the e-coupon for the seller has been distributed.

23. The e-coupon distribution system of claim 21 wherein the seller business type is described by a set of keywords.

24. The e-coupon distribution system of claim 21 wherein the type of e-coupon comprises:

- a time condition defining when said e-coupon can be distributed;
- a range condition defining where said e-coupon can be distributed; and
- a profit margin defining how much profit the seller can make from a redeemed e-coupon.

25. The e-coupon distribution system of claim 21 wherein said mobile user profile comprises:

- a mobile user identification;
- a mobile user instant contact address;
- a quota of e-coupons; and
- a number of effective requests.

26. The e-coupon distribution system of claim 25 wherein the instant contact address is a phone number, an instant message address, an email address, an SMS address, or any other method by which the user can be notified of said quota of e-coupons and an expected time to receive said e-coupon.

27. The e-coupon distribution system of claim 25 wherein the quota of e-coupons defines a maximum number of e-coupons said commerce server could send to said mobile user during a defined period.

28. The e-coupon distribution system of claim 25 further comprising said commerce server to receive the instant contact address of the mobile user and the location of the mobile electronic device.

29. The e-coupon distribution system of claim 25 further comprising:

- said profile proxy server to receive a notification that said mobile electronic device is located within said seller;
- said profile proxy server to receive said seller location information;
- said commerce server to determine whether said e-coupon has been redeemed;

and

- upon determining said e-coupon has been redeemed, said commerce server to increase the quota of e-coupons by one in the mobile user profile.

30. The e-coupon distribution system of claim 25 wherein said commerce server to log said request in step (ix) in said mobile user profile and said seller profile:
- creates a mobile user pending request record in the mobile user profile;
 - decreases the quota of e-coupons in the mobile user profile by one;
 - creates a seller pending request record in the seller profile; and
 - increases an estimated number of redeems by a proper value in the seller profile.
31. The e-coupon distribution system of claim 30 wherein said mobile user pending request record contains a request time and the seller identification.
32. The e-coupon distribution system of claim 30 wherein said seller pending request record contains a request time and the mobile user identification.
33. The e-coupon distribution system of claim 30 wherein said commerce server to authorize whether said e-coupon should be provided determines whether said number of pending requests is greater than or equal to an initial threshold.
34. The e-coupon distribution system of claim 33 wherein upon determining said number of pending requests is not greater than nor equal to said initial threshold, said commerce server increases the estimated number of redeems in the seller profile.
35. The e-coupon distribution system of claim 33 wherein upon determining said number of pending requests is greater than or equal to said initial threshold, said commerce server:
- creates a pending coupon record in the seller profile;
 - sends said pending coupon record to the seller via the seller instant contact address;
 - creates a pending redeem record in the mobile user profile; and
 - sends the pending redeem record to the mobile electronic device.

36. The e-coupon distribution system of claim 35 wherein at the end of a processing cycle, said commerce server further:

- removes all pending request records from the seller profile; and
- resets the estimated number of redeems to zero in the seller profile.

37. The e-coupon distribution system of claim 35 wherein said pending coupon record comprises:

- a serial number;
- a redeem confirmation number;
- an e-coupon text description;
- an issue time;
- an expire time;
- a number of mobile users who will receive said e-coupon;
- an estimated number of redeems; and
- a number of redeems.

38. The e-coupon distribution system of claim 37 wherein the number of mobile users who will receive said e-coupon, the estimated number of redeems, and the number of redeems are used to estimate an effectiveness of distribution of said e-coupon.

39. The e-coupon distribution system of claim 35 wherein said pending redeem record comprises:

- a serial number;
- an e-coupon text description;
- a request time;
- an issue time;
- an expire time; and
- a seller identification;

40. The e-coupon distribution system of claim 39 wherein the request time in the pending redeem record is equal to the request time in the mobile user pending request record.

41. The e-coupon distribution system of claim 39 wherein said commerce server further determines whether said pending redeem record has the request time equal to the mobile user pending request record.

42. The e-coupon distribution system of claim 41 wherein upon determining said pending redeem record does not have the request time equal to the mobile user pending request record:

said quota of e-coupons is increased by one in the mobile user profile; and
said commerce server removes the pending request record from the mobile user profile.

43. An article of manufacture comprising:

a computer-usable medium having computer-readable program code embodied therein for causing a distribution of e-coupons, the computer-readable program code in said article of manufacture comprising:

computer-readable program code for causing a computer to maintain mobile user profile and seller profile data in database memory;

computer-readable program code for causing a computer to receive a request to browse at least one e-coupon from a mobile electronic device of a user;

computer-readable program code for causing a computer to receive a location of the requesting mobile electronic device;

computer-readable program code for causing a computer to determine a plurality of sellers local to the location of the mobile electronic device and a plurality of corresponding e-coupons available from said sellers;

computer-readable program code for causing a computer to provide e-coupon availability data to the mobile electronic device;

computer-readable program code for causing a computer to receive a request for at least one e-coupon of a seller from the mobile electronic device;

computer-readable program code for causing a computer to log said request for an e-coupon of a seller in said mobile user profile and said seller profile;

computer-readable program code for causing a computer, at the end of a processing cycle, to authorize the provision of said e-coupon; and

computer-readable program code for causing a computer to provide said e-coupon to the mobile electronic device responsive to said authorizing step.

44. A computer program product for use with an output device, said computer program product comprising:

a computer-usable medium having computer-readable program code embodied in said medium for causing a distribution of e-coupons, said computer program product having:

computer-readable program code for causing a computer to maintain mobile user profile and seller profile data in database memory;

computer-readable program code for causing a computer to receive a request to browse at least one e-coupon from a mobile electronic device of a user;

computer-readable program code for causing a computer to receive a location of the requesting mobile electronic device;

computer-readable program code for causing a computer to determine a plurality of sellers local to the location of the mobile electronic device and a plurality of corresponding e-coupons available from said sellers;

computer-readable program code for causing a computer to provide e-coupon availability data to the mobile electronic device;

computer-readable program code for causing a computer to receive a request for at least one e-coupon of a seller from the mobile electronic device;

computer-readable program code for causing a computer to log said request for an e-coupon of a seller in said mobile user profile and said seller profile;

computer-readable program code for causing a computer, at the end of a processing cycle, to authorize the provision of said e-coupon; and

computer-readable program code for causing a computer to provide said e-coupon to the mobile electronic device responsive to said authorizing step.